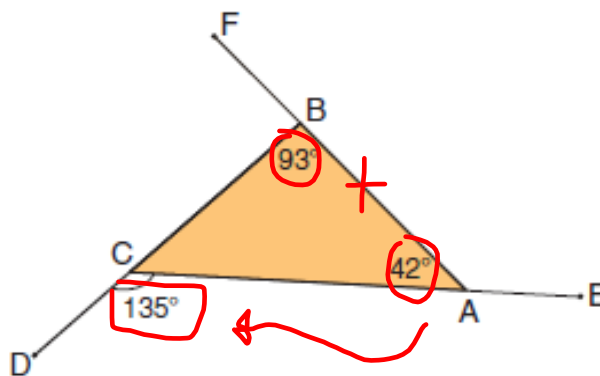
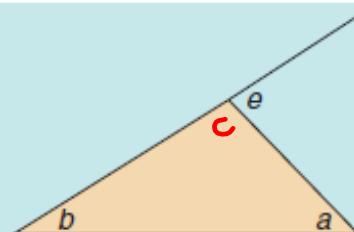


L2(3.2) - Exterior Angles of a Triangle



Each exterior angle of a triangle is equal to the sum of the two opposite interior angles.

That is, $e = a + b$



Example

Determine the angle measure indicated by x .

Solution

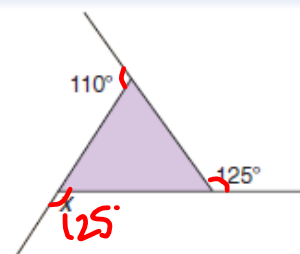
The sum of the 3 exterior angles of a triangle is 360° .

$$\text{So, } x + 110^\circ + 125^\circ = 360^\circ$$

$$x + 235^\circ = 360^\circ$$

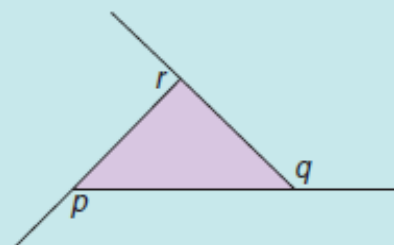
$$x = 360^\circ - 235^\circ$$

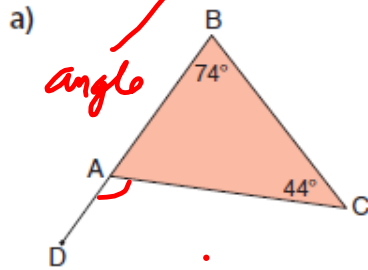
$$= 125^\circ$$



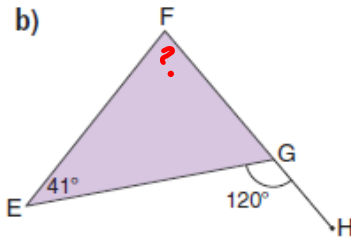
The sum of the 3 exterior angles of a triangle is 360° .

That is, $p + q + r = 360^\circ$

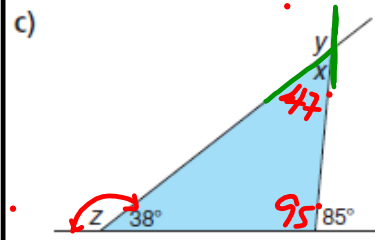


Find $\angle CAD$.

$$\begin{aligned}\angle A &= B + C \\ &= 74 + 44 \\ &= 118\end{aligned}$$

Find $\angle F$.

$$\begin{aligned}\angle F &= 120 - 41 \\ &= 79\end{aligned}$$

Find angles x , y , & z .

$$\begin{aligned}\angle z &= 180 - 38 \\ &= 142\end{aligned}$$

$$\begin{aligned}\angle b &= 180 - 95 \\ &= 95\end{aligned}$$

$$\begin{aligned}\angle x &= 180 - 95 - 38 \\ &= 47\end{aligned}$$

$$\begin{aligned}\angle y &= 180 - 47 \\ &= 133\end{aligned}$$

Assigned Work

p. 83-84

#2bcef, 3bc, 7ab